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Gosh! I Always Wondered...

Gosh! I always wondered.... Dr. Juana Noit

Skyscrapers

Although Chicago is really the "birth city" of the modern skyscraper, most people see New York City as the capital city of skyscrapers. Its skyline is world famous, featured in numerous paintings, photographs, and movies. It is instantly recognizable by many around the world.

How did the buildings that touch the sky evolve? Historically, they date to structures such as the pyramids, the protective towers of early Italy, and European church spires. Whether built as a tomb and memorial, as protection from invaders and a vantage point for defense (for those who could afford them), or as a lofty testimony of faith (and often a competitive gesture between cities), the tall buildings were engineering marvels.

One of the problems with the early structures was the reliance on stone and the limitations inherent in their use. Walls had to be thick at the bottom to support their great weight. As a result, height was limited and usable interior space was very small in comparison to the building's overall size. In addition, windows and wall openings had to be kept to a minimum for structural strength, resulting in dark, poorly ventilated interiors. This changed with the invention of the flying buttress, moving some of the support outward off one set of walls to another and allowing for more open interior space and larger windows. Dramatic increases in height became possible. Look at some of the European cathedrals for breathtaking examples of the fascinating architecture that allowed for the soaring and airy buildings of faith. In New York City, look at Trinity Church (Broadway and Wall Street) or St. Patrick's Cathedral (Fifth Avenue and 50th Street). They may not be as tall or large, but represent wonderful inner-city examples of religious buildings.

Another major step forward was the use of metal skeletons with interior columns bearing the load. Now the external frame could incorporate lots of glass and windows without threatening structural integrity. Interior floor space was opened up for offices, commerce, and residences. The core became the building's structural and utility backbone.

Almost literally, the sky was the limit. The skyscraper reached ever higher and the architecture became very imaginative. Innovation continued. There is interesting history in the competition between buildings vying for tallest at the time. One team built a spire inside the building and unexpectedly raised it on top to win. Another included a dirigible mooring station (used, I believe, once!) to add height.

In addition to mere height, the architects built for grandeur and beauty. The stone, marble, steel, and glass presented a statement and defined the architects and the companies that owned the buildings. In many ways, a skyscraper is much more than just a tall building. It is a statement.

Must-see buildings in New York include the Flatiron Building (23rd Street and Fifth Avenue), Woolworth Building (Broadway and Park Place), French Building (Fifth Avenue and 45th Street), Rockefeller Center (50th between Fifth and Sixth Avenues), Citicorp (53rd and Lexington), Chrysler Building (42nd and Lexington), and the Empire State Building (34th and Fifth). Don't just look up—check out the façade and the lobbies. As you look, wonder about those people who walked on those girders, delivered the beams to these cramped city streets, and designed the building structure and operating systems. Really makes one wonder!